

Today's Topics:

Alt.power.sources

How Much Good Does Ham Radio "Emergency Preparedness" Do?

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NASA Prediction Bulletins: Space Shuttle

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Weather Radio

Date: 21 Oct 89 00:35:28 GMT

From: winter@apple.com (Patty Winter)

Subject: Alt.power.sources

In article <6223@b11.ingr.com> herbster@b11.ingr.com (Joe Herbster) writes:

>

> Solar is expensive, not so good at night.

True, but a couple of months ago Phil Karn and I put together an HF station powered by a gel cell which got *its* power from a solar panel. I ran the station at nearly 75 watts--including one QSO that lasted nearly an hour--and the gel cell was still in great shape. (And it was just a little one; Phil--how many amp hours?)

Oh, right--the gel cell was also powering a portable packet station at the same time.

So my experience that it doesn't take much to overcome the nighttime unavailability of solar power. Just a moderate gel cell (about \$25) kept us going fine all night.

Patty

p.s. Apple VAX came back on line last night. Most Apple buildings were open today; almost all the rest will be early next week. Except, as someone pointed out, one of the main engineering buildings.

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*****
Patty Winter N6BIS                                INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44]                             UUCP: {decwrl,nsc,sun}!apple!winter
*****
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Date: 20 Oct 89 16:30:14 GMT

From: mtxinu!sybase!forrest%sybase.com@ucbvax.Berkeley.EDU
Subject: How Much Good Does Ham Radio "Emergency Preparedness" Do?

For a long time I have watched and listened to many emergency preparedness efforts that have taken place. I don't take part in them because based on my experiences in several major earthquakes and other lesser disasters, I've learned that most of this well intentioned work doesn't amount to much. What usually happens is that there is about 80% chaos, confusion, and needless running around. My theory is that, with a few exceptions mentioned below, this 80% figure is what would occur naturally, with or without all the emergency preparations.

Since I live 800ft above the Northern California Bay Area and can hear almost everything that goes on on 2m, I had a good opportunity to re-examine my feelings after the recent earthquake. If anything, what I heard just reconfirmed my beliefs even more. This wasn't even all that bad an earthquake, in spite of what you may have seen on TV. If it had been really bad the confusion factor would have been even worse.

The areas that I see that do benefit from emergency preparedness are:

1. Making sure repeaters can stay on the air after the disaster.
2. Agreeing on which frequencies to use for certain purposes.
3. Having stations setup at key sites
4. Setting up liaisons between civil defense organizations and ham radio operators

Other than this, since ham radio is not a paramilitary organization, I don't think there's much we can do to substantially reduce the chaos and confusion. But, I don't think this is any big deal. Most hams gladly and unselfishly lend a hand when problems occur. I bet that most of the good work results from spontaneous organization and natural talent rather than all the drills.

Please don't misunderstand what I'm saying. Ham Radio should play a vital role in providing communications after a disaster. It has proved itself many times. All I'm saying is that I don't think that a lot of the organization and effort that goes into Ham Radio emergency preparedness is worth it.

Anything you read here is my opinion and in no way represents Sybase, Inc.

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Date: 20 Oct 89 14:39:21 GMT
From: asuvax!anasaz!john@handies.ucar.edu (John Moore)
Subject: Jamming during earthquake (was Re: Phonepatches to San Fransisco)

In article <5838@merlin.usc.edu> eickmeyer@girtab.usc.edu (Biff Henderson) writes:
]I would also like to see an answer to Gordon Banks' question: "Why can't
]these people be caught?" The three answers that come immediately to mind
]are: 1. they're mobile and can't easily be triangulated, 2. they only
]transmit briefly, or 3. during the emergency situation no one wants
]to waste any time tracking down idiots rather than working on the
]emergency; maybe our state Office of Emergency Services and the
]Federal Emergency Management Administration (if not the FCC) should have a
]few people dedicated to the task of catching such rogues during emergencies.

Let me give a better reason why these turkeys are not caught: lack of organization and resources. During Hugo, the FCC was monitoring our 14.325 hurricane watch net, but the stations they assigned to monitor were all on the east coast. Since net control (myself) was out west in Phoenix, the FCC stations couldn't hear any jamming directed at net control (which is normally the target of jammers since net control is constantly on the frequency and is the visible "authority" which these jerks hate). The VOLMON program (I am OOC in Arizona) does not have any reasonable organization for HFDF and quick response tracking.

If we knew what city these jerks were in, and had a reasonable organization, we could get out mobile stations into those cities. On the HF nets, effective jammers are not mobile - they can't get enough ERP that way.

By the way, in the case of Hugo, once the situation became critical, and it was clear that we were the only link between the National Hurricane Center and the affected area, the jammers went away. I am told that they were attracted to 14.313, so at least the dopes on 14.313 have done some good!

--
John Moore (NJ7E) mcdphx!anasaz!john asuvax!anasaz!john
(602) 861-7607 (day or eve) long palladium, short petroleum
7525 Clearwater Pkwy, Scottsdale, AZ 85253
The 2nd amendment is about military weapons, NOT JUST hunting weapons!

Date: Fri, 20 Oct 89 16:54:27 EDT
From: tkelso@afit-ab.arpa (TS Kelso)
Subject: NASA Prediction Bulletins: Space Shuttle

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current elements for the current shuttle mission are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

STS-34

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1 20297U 89 84 A 89293.77450672 -.00138432 00000-0 -56943-3 0 116
2 20297 34.3195 134.3257 0026119 213.4539 146.5504 15.84885491 309
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Dr TS Kelso
tkelso@blackbird.afit.af.mil

Asst Professor of Space Operations
Air Force Institute of Technology

Date: 20 Oct 89 22:06:46 GMT
From: gem.mps.ohio-state.edu!uakari.primate.wisc.edu!uflorida!haven!
sayshell.umd.edu!louie@tut.cis.ohio-state.edu (Louis A. Mamakos)
Subject: OSCAR Homebrew antenna advice

Hello all. I've decided after a number of years to finally become active on the OSCAR satellites; and specifically on AO-13. I'm about to drop a bit more than a kilobuck buying some RF gear, so I thought that I might save a few bucks and build some antennas. I need a bit of advice since I'm a bit more of a digital computer science type person than an EE and my experience with antennas is more empirical rather than theoretical.

I was thinking of building a circular polarized 30-odd element yagi for 438MHz, as described in an issue of 73 magazine earlier this year. The article in the magazine had the vertical set of elements offset on the boom by 1/4 wavelength from the horizontal, and fed them both in phase. Thus, the offset on the boom causes the appropriate sense of circular polarization.

The other alternative is to have the vertical and horizontal elements not offset, and to feed them out of phase.

The antenna described in the article is constructed on a hunk of 3/4 inch copper pipe with brass rods as elements. The elements are soldered to the boom. My question is this: If I choose to not offset

the vertical set of elements from the horizontal set, and instead mount them each at the same distance from the end of the boom, will this affect the design in terms of the element lengths or spacing?

I'd like to mount them together to make it simpler to invert the sense of the polarization.

That's it so far for the stupid questions, more to follow, probably. Also, if someone has a pointer to an antenna design which is easy to build and you've had success with, I'd be interested in hearing about it.

73,
louie WA3YMH

Date: 20 Oct 89 20:29:08 GMT
From: asuvax!hrc!valley!pfluegerm@handies.ucar.edu (Mike Pflueger)
Subject: Weather Radio

In article <546@crash.cts.com>, scotto@pnet01.cts.com (Scott O'Connell) writes:
> How do the 'alert-type' weather radios work? Does the NOAA broadcast with
> a PL tone or what?
>
> -- Scott

They use a single 1050 Hz tone transmitted before the voice bulletin. I believe it is recommended that detectors "hear" the tone without dropping for 5 seconds. I believe it is transmitted for 15 seconds.

The NOAA stations used to test this once a week. Wednesday at noon was the standard for my local station, but I don't remember if this was true everywhere.

I built a simple tone detector using a 567, which drove a 555 rigged to work as a 2 minute monostable MV. The 555 in turn drove a relay which switched the output from my receiver between an 8 ohm resistor or the speaker. Thus, when the tone was received, the speaker would kick on for about 2 minutes to allow the alert or warning to be heard. At the end of the two minutes, it would go back into "silent" mode, awaiting the next alert. I also had the output of the 567 driving an SCR with an LED and N.C. pushbutton switch so that if an alert sounded while I was away, the LED would turn on and remain on until reset via the pushbutton switch. The 567 time constant was set to provide detection after about 1 second, preventing it from "falsing" on the normal voice transmissions.

A similar circuit can be used (with 2 567's and an "AND" gate) to detect either a single DTMF digit, or the civil defense tones broadcast by TV & radio ("this is only a test..."). Don't know the tone frequencies for the latter, offhand.

I believe there may be a NOAA publication which gives details of the alert system, but I'm sure its 1050 Hz.

--

Mike Pflueger @ AG Communication Systems (formerly GTE Comm. Sys.), Phoenix, AZ

UUCP: {...!ames!ncar!noao!asuvax | uunet!zardoz!hrc | att}!gtephx!pfluegerm

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